

NEW SPECIES, NAMES, AND COMBINATIONS IN MEXICAN ASTERACEAE

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ABSTRACT

The following new species, names and combinations of Mexican Asteraceae are proposed: *Brickellia oligadenia* (B.L. Robins.) B. Turner, *stat. nov.*; *Helianthus petiolaris* Nutt. var. *fallax* (Heiser) B. Turner, *comb. nov.*; *Helianthus praecox* Engelm. & A. Gray var. *runyonii* (Heiser) B. Turner, *stat. nov.*; *Hemizonia greeneana* Rose var. *peninsularis* (Moran) B. Turner, *stat. nov.*; *Hymenoxys ursina* (Standl.) B. Turner, *comb. nov.*; *Iva ambrosiifolia* (A. Gray) A. Gray var. *lobata* (Rydb.) B. Turner, *comb. nov.*; *Microseris douglasii* (DC) Schultz-Bip. var. *platycarpa* (A. Gray) B. Turner, *stat. nov.*; *Otopappus pittieri* (Greenm.) B. Turner, *comb. nov.*; *Perymenium fayi* B. Turner, *spec. nov.*; *Pseudogynoxys chenopodioides* (H.B.K.) Cabrera var. *cummingii* (Benth.) B. Turner, *comb. nov.*; *Viguiera superaxillaris* (S.F. Blake) B. Turner, *comb. nov.*; *Zinnia angustifolia* H.B.K. var. *littoralis* (B.L. Robins. & Greenm.) B. Turner, *comb. nov.*; *Zinnia maritima* H.B.K. var. *palmeri* (A. Gray) B. Turner, *comb. nov.*

KEY WORDS: Asteraceae, México, *Brickellia*, *Helianthus*, *Hemizonia*, *Hymenoxys*, *Iva*, *Microseris*, *Otopappus*, *Perymenium*, *Pseudogynoxys*, *Viguiera*, *Zinnia*.

Preparation of a treatment of the Asteraceae for México (Turner & Nesom, in prep.) has necessitated the following new species, names, and combinations.

Brickellia oligadenia (B.L. Robins.) B. Turner, *comb. nov.* BASIONYM: *Brickellia squarrosa* (Cav.) B.L. Robins. var. *oligadenia* B.L. Robins., Mem. Gray Herb. 1:92. 1917.

McVaugh (1984) followed Robinson (1917) in treating this as a variety of *Brickellia squarrosa* (Cav.) B.L. Robins. (*nom. illegit.*; \equiv *B. cavanillesii* [Cass.] A. Gray), to which it is certainly related. He noted, however, the geographical isolation of the taxon and the several characters that mark it, all

of which suggest that it is worthy of specific rank. It is readily distinguished from *B. cavanillesii* by its larger, eglandular heads, appressed, more scarious involucre bracts and larger, longer petioled, leaves. It also approaches *B. argyrolepis* B.L. Robins. and occasional specimens with eglandular peduncles might be mistaken for that taxon.

Helianthus petiolaris Nutt. var. *fallax* (Heiser) B. Turner, *stat. nov.* BASTONYM: *Helianthus petiolaris* Nutt. subsp. *fallax* Heiser, *Rhodora* 60:279. 1958.

Helianthus praecox Engelm. & A. Gray var. *runyonii* (Heiser) B. Turner, *stat. nov.* BASTONYM: *Helianthus debilis* Nutt. subsp. *runyonii* Heiser, *Madroño* 13:161. 1956.

Heiser (Heiser, *et al.* 1969) subsequently placed this taxon as a subspecies under *Helianthus praecox* Engelm. & A. Gray.

Hemizonia greeneana Rose var. *peninsularis* (Moran) B. Turner, *stat. nov.* BASTONYM: *Hemizonia greeneana* Rose subsp. *peninsularis* Moran, *Trans. San Diego Soc. Nat. Hist.* 15:286. 1969.

Hymenoxys ursina (Standl.) B. Turner, *comb. nov.* BASTONYM: *Actinea ursina* Standl., *Field Mus. Publ. Bot.* 22:126. 1940.

Iva ambrosiifolia (A. Gray) A. Gray var. *lobata* (Rydb.) B. Turner, *stat. nov.* BASTONYM: *Cyclachaena lobata* Rydb., *N. Amer. Fl.* 1:3310. 1972.

This variety is largely confined to the montane regions of eastern México (type from near Monterrey, Nuevo León); westward it grades into the var. *ambrosiifolia* (type from trans-Pecos, Texas, U.S.A.). Jackson (1960) treated these regional taxa as subspecies under *Iva ambrosiifolia*; the supravarietal classification seems unwarranted considering the degree of morphological intergradation observed in regions of peripheral allopatry.

Microseris douglasii (DC.) Schultz-Bip. var. *platycarpa* (A. Gray) B. Turner, *stat. nov.* BASTONYM: *Calais platycarpa* A. Gray, *Pacific RR. Rep.* 4:113. 1857.

Chambers (1955) treated the present taxon as a subspecies of *Microseris douglasii*, noting its localized occurrence in southernmost California and adjacent Baja California, México.

Otopappus pittieri (Greenm.) B. Turner, *comb. nov.* BASTONYM: *Zezmenia pittieri* Greenm. in W.W. Jones, *Proc. Amer. Acad. Arts* 41:156. 1905.

Villaseñor & Strother (1989) erected the monotypic genus *Tuztla* to accommodate this species. In spite of their reasoned treatment which included comparisons with species of *Otopappus*, *Zexmenia*, and *Verbesina*, I find their phenogram showing the relative isolation of this species unconvincing. Until its position can be established with more certainty, it would appear more prudent to position this within *Otopappus* where I perceive its immediate relationships.

Perymenium fayi B. Turner, *spec. nov.* TYPE: MÉXICO. Sinaloa: along highway 40, 53 mi NE of Mazatlán, on side of mountain, 10 Sep 1965, Raymond C. Jackson 7230 (HOLOTYPE: TEX).

Perymenium pringlei B.L. Robins. & Greenm. *similis sed foliis minute strigillosis in paginis inferis. capitulis majoribus. et bracteis involucri luteo-scariosis differt.*

Shrubs to 1-2 m high. Stems (upper) tetragonal, deeply grooved on each side, strigose. Leaves ovate lanceolate to linear lanceolate, 6-14 cm long, 0.5-3.0 cm wide; petioles 2-10 mm long; blades trinervate from or somewhat above the base, green and sparsely to moderately appressed strigose below, the margins remotely serrate. Heads campanulate, ca. 10 mm high, 8-10 mm wide (excluding rays) arranged terminally in 4-8 flowered, subfasciculate corymbs, the ultimate (mature) peduncles mostly 3-5 cm long. Involucres 3-4 seriate, graduate, 6-8 mm high, the innermost bracts broad, yellowish, only sparsely ciliate. Receptacular pales 5-7 mm long. Ray florets mostly 8, the ligules yellow, 8-12 mm long, 2-3 mm wide. Disk florets 20-30; corollas 5.5-6.5 mm long, the lobes hispidulous. Anthers brown, the appendages white. Achenes 3.5-4.0 mm long, ca. 2 mm wide, wingless, ciliate along the margins, the pappus of ca. 30 deciduous bristles, mostly 2-3 mm long.

ADDITIONAL SPECIMENS EXAMINED: MÉXICO. Sinaloa: 3.5 mi SW of El Palmito, highway 40, ca. 6000 ft, 8 Nov 1964, D. Flyer 307 (TEX); 53 mi NE of Mazatlán, 10 Sep 1965, Jackson 7233 (TEX).

The holotype has narrowly lanceolate leaves and is superficially markedly different from the other two collections cited, the latter having ovate leaves. Nevertheless all are very similar as to vestiture and details of head and floret structure. While compared with *Perymenium pringlei*, the present species might ultimately find its closest relationship with *P. hintonii* McVaugh of Michoacán and adjacent state of México; both of the latter species possess similar large heads with large florets, but *P. fayi* has leaf blades acute to obtuse at the base and the vestiture is strictly appressed strigillose throughout with very short hairs.

It is a pleasure to name this species for Dr. John J. Fay, in recognition of his scholarly treatment of this difficult genus.

Pseudogynoxys chenopodioides (H.B.K.) Cabrera var. *cunningii* (Benth. ex Oerst.) B. Turner, *comb. nov.* BASIONYM: *Gynoxys cunningii* Benth. ex Oerst., Kjoeb. Vidensk. Med. Dask. Nat. Foren. 1852:106. 1852.

Robinson & Cuatrecasas (1977) treated this widely distributed taxon at the specific level within *Pseudogynoxys*. It appears to be exceedingly close to *P. chenopodioides*, distinguished primarily by its pubescent foliage. Only a single collection is known from México (Oaxaca, 32 km N of Puerto Escondido, Martínez, et al. 2720; MEXU, TEX), although the variety is common from Guatemala southwards to Colombia. The var. *chenopodioides* is largely confined to the Gulf slopes of México. One might make a case for the inclusion of var. *cunningii* as an infraspecific category of *P. haenkei* (DC.) Cabrera, the only other species of *Pseudogynoxys* native to México, but I think its relationship is closer to *P. chenopodioides*. Detailed monography may ultimately show that all of these are but allopatric regional units of a very variable *P. cordifolia* (Cass.) Cabrera.

Viguiera superaxillaris (S.F. Blake) B. Turner, *comb. nov.* BASIONYM: *Hymenostephium superaxillare* S.F. Blake, Proc. Biol. Soc. Washington 37:57. 1924.

The type of this species (US!) is given as "La Bojada, Tamazula, Durango, México, altitude 300-600 m, Nov. 1921, by J.G. Ortega (no. 4437)." Blake positioned the species in *Hymenostephium* (which I consider to be part of *Viguiera*, as do Robinson [1981] and McVaugh [1984]), noting that it was nearest to the widespread, highly variable *V. cordata* S.F. Blake of Blake (1918) where it does not appear to have any close relatives. This is discussed in more detail in Turner (1987) where I needlessly described *Viguiera vorobikae* B. Turner, which is clearly a synonym of the present taxon.

Zinnia angustifolia H.B.K. var. *littoralis* (B.L. Robins. & Greenm.) B. Turner, *comb. nov.* BASIONYM: *Zinnia littoralis* B.L. Robins. & Greenm., Proc. Amer. Acad. Arts 32:16. 1896.

This taxon, which is largely confined to the coastal areas about Mazatlán, Sinaloa, was maintained at the species level by both Torres (1963) and Strother (1979). In my opinion it is a localized coastal ecotype of the widespread *Zinnia angustifolia*, with which it appears to intergrade. Strother distinguished the latter (in key form) from *Z. littoralis* by the color of receptacular bracts ("stramineous to tip" in *Z. littoralis* vs. "metallic yellow to bright, coppery orange distally"), but I do not find these compelling distinctions; in nearly all other characters it is like *Z. angustifolia*, the most obvious distinction being the somewhat larger heads and shorter, broader leaves in *Z. littoralis*.

Zinnia maritima H.B.K. var. *palmeri* (A. Gray) B. Turner, *comb. nov.*
BASIONYM: *Zinnia palmeri* A. Gray, Proc. Amer. Acad. Arts 22:423.
1886.

As indicated by McVaugh (1984), *Zinnia maritima* is distinguished from *Z. palmeri* by its "somewhat woody or almost shrubby" habit and petiolate leaves which are "rounded to acute at base and the blades sometimes elliptic." Such plants grade into what Strother (1979) accepts as *Z. palmeri*, although both Torres (1963) and McVaugh (1984) treat the two taxa as synonymous. I agree with Strother (1979) that "in spite of considerable morphological variation, two distinct modes are discernible and distinguishable." In short, typical var. *maritima* appears to be a coastal ecotype of the widespread allopatric var. *palmeri*, the former presumably confined to coastal regions from Acapulco, Guerrero northwards to Jalisco; the latter is largely a taxon of the more interior montane habitats. This relationship is similar to that noted for *Z. angustifolia* var. *littoralis* and *Z. a.* var. *angustifolia*, the former being a coastal ecotype, the latter being a more widespread montane element.

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